

I. REMARKS/ARGUMENTS

These remarks are submitted in response to the Office Action of January 9, 2007 (Office Action). As this response is timely filed within the 3-month shortened statutory period, no fee is believed due. As a result of this Amendment, claims 1-5, 7, 10, 11, 13, 14, 15 and 17-20 have been amended. Claims 1-20 remain in the Application. No new matter has been introduced as a result of this amendment.

In paragraph 3, page 2 of the Office Action, Claims 1-6, 14-17, and 20 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,219,560 to Erkkila et al (hereinafter "Erkkila").

In paragraph 6, page 7 of the Office Action, Claims 7-12, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Erkkila in view of U.S. Patent No. 6,029,072 to Barber.

In paragraph 7, page 10 of the Office Action, Claim 13 was rejected under 35 U.S.C. 103(a) as being unpatentable over Erkkila.

In paragraph 8, page 11 of the Office Action, Claim 18 was rejected under 35 U.S.C. 103(a) as being unpatentable over Erkkila in view of Barber.

II. Applicant's Invention

It may be helpful to reiterate certain aspects of Applicant's invention prior to addressing the references cited in the Office Action. An embodiment in accordance with the invention, for example, can provide a modular wireless communication module, comprising a transceiver coupled to a processor and memory, and an interface block coupled to the processor. The processor is programmed to operate in accordance with an identifier signal received from at least one among a plurality of detachable host devices each having different user interfaces. The processor also adapts to control a user interface of a detachable host device based on the identifier signal identifying the user interface.

III. The Claims Define Over the Prior Art

On Page 2 of the Office Action, claims 1-6, 14-17, and 20 were rejected as being anticipated by Erkkila. Briefly, Erkkila is directed to a mobile communication device constructed to receive an expansion card which provides the mobile communication device capability of generating images. The expansion card includes a camera lens (FIG 1-3) for taking a picture and processing logic to communicate the picture to the mobile communication device through an interface. The expansion card contains the basic devices, utilities, and camera control for imaging functions. As seen in FIG. 5, Erkkila shows a mobile communication device having a transceiver 59, a display 55, a user interface 54, a memory 53, an interface block 50 and other processing components. The expansion card couples to the interface 50 and stores image data in the memory 53 which can be presented on the display 55. In practice, a user can control the camera on the expansion card through the user interface 54 on the mobile communication device. For example, the user can take a picture, store the picture to the memory 53, and visually see the captured image on the display 55.

In Erkkila, the transceiver 59 is an integral part of the mobile communication device, and is not included as part of the expansion card. Notably, the expansion card, which couples to the mobile communication device through the interface slot 50, provides an imaging function that is separate from radio frequency (RF) processing functions associated with the transceiver 59. The expansion card, which provides the imaging functions, does not include a RF transceiver. Briefly, a first distinguishing feature of embodiments of the Applicant's invention with respect to Erkkila is the functionality and placement the transceiver. In Applicant's embodiments, the transceiver is part of the wireless communication module; that is, it is not part of the mobile host device, as in Erkkila.

Applicant's recited claims provides a wireless communication module that adapts to use for different host devices having different user interfaces. As shown in FIG. 1 of Applicants' Drawings, the wireless communication module contains a transceiver 13, a processor 14, a first interface block 24, and other components. The wireless communication module can be coupled to a host device 30 having a second interface

block 46, user interface 24 and other components. Notably, the host device is detachable from the wireless communication module, thereby allowing the wireless communication module to interface to a plurality of other host devices each having their own specific user interfaces. The transceiver 13 is specific to the wireless communication module and provides communication portability among host devices that do not have communication resources. The transceiver 13 is part of the wireless communication module. In contrast, the communication aspects of the transceiver are already present on the host device. Erkkila does not teach that communication resources, such as a transceiver, are on the expansion card, which is a second distinguishing feature of Applicants' embodiments of the invention.

A third distinguishing feature is that the communication functionality of the transceiver is passed to the detachable host device, and the control of the detachable host device is passed to the wireless communication module (FIG. 17). For example, the first interface block 24 can communicate with the second interface block 46 to receive an identifier signal that identifies the user interface 34 on the host device 30. The processor 14 of the wireless communication module can identify the user interface 54 on the host device 30 and adapt a control of the user interface 54 in accordance with the display 18 on the wireless communication module. Notably, this allows the wireless communication module to display a user interface that complies with the input aspects of the detachable host device. In contrast, Erkkila does not teach or even begin to suggest or contemplate a wireless communication module having a transceiver and a processor that identify a user interface of a detachable host device and control the detachable host device and the associated user interface. For instance, the mobile communication device of Erkkila can perform communication functions without the expansion card. In contrast, the detachable mobile host device of Applicants' embodiments may not have a communication module, and therefore require the wireless communication module to provide communication functions.

In response to the rejection of claim 1 on page 2 of the Office Action, Applicants have amended claim 1 to clarify further distinguishing features recited in Applicants' specification. In particular, claim 1 as amended, discloses that a processor of the

wireless communication module adapts to control a user interface of a detachable host device based on an identifier signal identifying the user interface. Erkkila does not teach a processor that adapts to control a user interface based on an identification signal provided by the detachable host. Erkkila only teaches identifying a type of expansion card or a secure identification module (SIM) card which includes user's phone numbers (Col. 6, lines 6-38). Neither the expansion card or the SIM are capable of identifying the user interface. Erkkila fails to teach, or even suggest, mention or contemplate an identifier signal that identifies the user interface or a processor that adapts to control such user interface.

Claim 2, as amended discloses a digital signal processor coupled to the processor that conforms the control to user preferences of the different user interfaces. As an example, the wireless communication module can conform to a specific activity the user is performing (See Specification, paragraph [0030]). Erkkila does not teach a wireless communication module that conforms to user preferences.

Claim 3, as amended discloses a display on the wireless communication module that presents input from the user interface of the detachable host in accordance with the user interface preferences identified in the detachable host device. Erkkila only teaches a display that is part of the mobile host device (FIG. 5). Erkkila does not teach a wireless communication module having a display that presents input from the user interface (Note that the expansion card does not include a display, and thus cannot present user input from the user interface).

Claim 4, as amended discloses that the wireless communication module provides a display to present content associated with a given detachable host device that does not have a display. Again, Erkkila does not teach a display on the camera expansion card.

Applicants respectfully submit, therefore, that Claim 1 as amended defines over the prior art. Applicants further respectfully submit that whereas Claims 2-6 each depend from one of the amended independent claims while reciting additional features, the dependent claims likewise define over the prior art.

On Page 4 of the Office Action, claim 14 was rejected as being anticipated by Erkkila. It was stated that Erkkila teaches a processor programmed to operate with and control a plurality of different host devices having different user interfaces. The Examiner has established that the "host device" are in fact merely attached devices such as a camera, game controller, or MP3 player as described in instant paragraph [0029] of the instant specification. However, the same processor in each of the devices is clearly not used for the different host devices. For example, the processor of a camera is not used as the processor in an MP3 player. That is, a single processor is not shared amongst a plurality of host devices when referring to a plurality of host devices in accordance with the specification. Notably, each host device can have its own processor. In Applicant's invention, the host devices may or may not have a dedicated processor (See FIG. 1, interface module 30). Accordingly, the wireless communication module can provide a processor that is shared among a plurality of detachable host devices that do not have processor (See FIG. 1, processor 14 in wireless communication module 12).

Applicants have amended claim 14 to clarify distinguishing features recited in Applicants' specification without changing the claim scope. In particular, claim 14 as amended, discloses a processor that identifies a user interface of a detachable host device, wherein the processor is adaptively programmed to operate with and control a plurality of different host devices having different user interfaces. An interface block detects the user interface of at least one among the plurality of host devices. For example, the wireless communication module can be inserted into a plurality of detachable mobile host devices and identify a user interface of a detachable host device. The wireless communication module can then control the user interface, thereby allowing a user of the detachable host device to receive communication functions through the transceiver. Erkkila does not teach a wireless communication module having a radio communication transceiver and a processor that identifies a user interface of a detachable host device, wherein the processor is adaptively programmed to operate with and control a plurality of different detachable host devices.

With respect to claim 15, Erkkila does not teach a wireless communication module having a transceiver, a processor, and a display, wherein the display presents information associated with the adaptable wireless communication module and a given host device. The wireless communication module includes a processor that controls the detachable host device regardless if the detachable host device already has a processor. A host device can be a camera, game controller, or MP3 player, having its own processor that is not shared with the other host devices. Erkkila does not teach a wireless communication module having a transceiver, a processor, and a display that identifies a user interface of a host device and adapts control of the host device based on the user interface identified.

Applicants respectfully submit, therefore, that Claim 14 as amended defines over the prior art. Applicants further respectfully submit that whereas Claims 15-18 each depend from one of the amended independent claims while reciting additional features, the dependent claims likewise define over the prior art.

On Page 5 of the Office Action, claim 20 was rejected as being anticipated by Erkkila. It was stated that Erkkila refers to the wireless module as the "host device" rather than the attachment devices in view of a description of a host device presented in paragraph [0029] of the instant specification. Regardless, Erkkila does not teach a method of reusing a modular wireless communication module which involves selectively coupling the modular wireless communication module with a first detachable host device. Erkkila only teaches a single mobile communication device that has an integrated transceiver 59. The integrated transceiver is not external, nor does the expandable card include a transceiver. Accordingly, in Erkkila, there is no coupling of the modular wireless communication module with a first detachable host device since the components are already inherently attached in the mobile communication device.

On Page 7 of the Office Action, claim 7 was rejected as being unpatentable over Erkkila in view of Barber. Briefly, Barber is directed to a portable telephone with terminal mode facility. The mobile device, when coupled to a host, relinquishes control to the host according to display control commands received by the mobile device from the host. It was stated that Erkkila teaches a modular wireless communication module

having a transceiver coupled to a processor and memory, and a first interface block coupled to the processor, and a host device having a power source, a user interface, and a second interface block, wherein the host device is one among a plurality of host devices having different user interfaces and the processor is adaptable to control the different user interfaces when the first interface block recognizes the second interface block of a given host device. Notably, the processor adapts to control the different user interfaces which is an aspect not taught by Erkkila. Erkkila only teaches the expanding card includes identifying information such as the type of expansion card (Col. 6, line 6). Erkkila does not teach identifying a user interface of the mobile communication device. As amended, claim 7 discloses that the processor identifies a user interface of the detachable host device and adapts to control the different user interfaces when the first interface block recognizes the second interface block of a given host device. Erkkila does not teach adapting a control based on identifying a user interface.

It was stated that Barber teaches attaching devices to a wireless device wherein the attached device has its own power supply. Briefly, FIG. 3 of Barber shows that host device includes a battery charger 326 that couples to the mobile device 200 to charge a battery of the mobile device. Notwithstanding the fact that Erkkila does not teach a processor that identifies a user interface of the detachable host device and adapts to control the different user interfaces as identified in amended claim 7, it would not be obvious to extend the novel aspects of the invention to include a power source.

Applicants respectfully submit, therefore, that Claim 7 as amended defines over the prior art. Applicants further respectfully submit that whereas Claims 8-13 each depend from one of the amended independent claims while reciting additional features, the dependent claims likewise define over the prior art.

On Page 7 of the Office Action, claim 19 was rejected as being unpatentable over Erkkila in view of Barber. It was stated that Erkkila teaches a power source, a user interface coupled to the power source, and a second interface block, wherein the host device is one among a plurality of host devices having different user interfaces controlled by the processor when the first interface block recognizes the second interface block of the host device. However, as amended, Erkkila does not teach a

processor in the modular wireless communication module that identifies a user interface in a detachable host device and adapts a control of the detachable host device. Note, in Erkkila, the expansion card does not contain a transceiver, identify a user interface, or adapt a control of the mobile device based on the identified user interface.

IV. CONCLUSION

Applicants believe that this application is now in full condition for allowance. Allowance is therefore respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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